

Application No.: 10/608581

Docket No.: TOW-029

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A fuel cell comprising a pair of separators and electrolyte electrode assemblies interposed between said separators, said electrolyte electrode assemblies each including an anode, a cathode, and an electrolyte interposed between said anode and said cathode, wherein

a first area for providing said electrolyte electrode assemblies is formed between said separators;

each of said separators includes a first plate and a second plate stacked together to form a second area between said first plate and said second plate;

said second area is divided by a partition into a fuel gas channel, and oxygen-containing gas channel formed on the same surface thereof, said partition including a ridge protruding from said first plate to contact said second plate;

said fuel gas channel formed in one of said separators is connected to said first area through fuel gas inlets for supplying said fuel gas to anodes of said electrolyte electrode assemblies; and

said oxygen-containing gas channel formed in the other of said separators is connected to said first area through oxygen-containing gas inlets for supplying said oxygen-containing gas to cathodes of said electrolyte electrode assemblies.

2. (Canceled)

3. (Currently Amended) A fuel cell stack comprising a pair of separators and electrolyte electrode assemblies interposed between said separators, said electrolyte electrode assemblies each including an anode, a cathode, and an electrolyte interposed between said anode and said cathode, wherein

a first area for providing said electrolyte electrode assemblies is formed between said separators;

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each of said separators includes a first plate and a second plate stacked together to form a second area between said first plate and said second plate;

said second area is divided by a partition into a fuel gas channel, and oxygen-containing gas channel formed on the same surface thereof, according to claim 1, wherein said partition includes a ridge protruding from said second plate to contact said first plate;

said fuel gas channel formed in one of said separators is connected to said first area through fuel gas inlets for supplying said fuel gas to anodes of said electrolyte electrode assemblies; and

said oxygen-containing gas channel formed in the other of said separators is connected to said first area through oxygen-containing gas inlets for supplying said oxygen-containing gas to cathodes of said electrolyte electrode assemblies.

4. (Original) A fuel cell according to claim 1, said fuel gas and said oxygen-containing gas are supplied through said fuel gas inlets and said oxygen-containing gas inlets to central regions on opposite surfaces of said electrolyte electrode assemblies, respectively.

5. (Currently Amended) A fuel cell according to claim 1, wherein said first plate and said second plate have first bosses and second bosses, respectively, and said first bosses and said second bosses protrude toward each other for sandwiching said electrolyte electrode assemblies.

6. (Original) A fuel cell according to claim 5, wherein said first bosses and said second bosses are current collectors for collecting electric energy produced by chemical reaction of said fuel gas and said oxygen-containing gas supplied to opposite surfaces of electrolyte electrode assemblies.

7. (Original) A fuel cell according to claim 5, wherein said first bosses protrude toward said electrolyte electrode assemblies by a large distance in comparison with said second bosses.

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8. (New) A fuel cell according to claim 3, said fuel gas and said oxygen-containing gas are supplied through said fuel gas inlets and said oxygen-containing gas inlets to central regions on opposite surfaces of said electrolyte electrode assemblies, respectively.

9. (New) A fuel cell according to claim 3, wherein said first plate and said second plate have first bosses and second bosses, respectively, and said first bosses and said second bosses protrude toward each other for sandwiching said electrolyte electrode assemblies.

10. (New) A fuel cell according to claim 9, wherein said first bosses and said second bosses are current collectors for collecting electric energy produced by chemical reaction of said fuel gas and said oxygen-containing gas supplied to opposite surfaces of electrolyte electrode assemblies.

11. (New) A fuel cell according to claim 9, wherein said first bosses protrude toward said electrolyte electrode assemblies by a large distance in comparison with said second bosses.